Bioinformatics Training at Edinburgh Genomics

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Training and Outreach Bioinformatician
Edinburgh Genomics
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• Genomics facility based at the University of Edinburgh
• Available for collaborations on an academic, non-profit basis
• Formed from merger of
  – ARK-Genomics
  – The GenePool
• Funded by three major bio UK research councils
  – BBSRC
  – MRC
  – Natural Environment Research Council
• A range of technologies and expertise available

http://genomics.ed.ac.uk
**Edinburgh Genomics**

**Illumina HiSeq:**
- 36-150 bp reads
- 18-180 Gb per run
- 7-40h per run

**6 human genomes @ 40x per day**
**Coming soon – 250 bp reads**
**Coming soon – 1 Tb per 6-day run**

**Illumina MiSeq:**
- 36-300 bp reads
- 0.5-15 Gb per run
- 4-65h per run

**550 bp contiguous sequence with paired-end reads**

**Automation:**
- 96 DNA-seq libraries in 1 day
- 96 RNA-seq libraries in 2 days
• 0.25 PB ultra-secure Isilon data storage
• Powerful SGE (Sun Grid Engine) cluster:
  – Several hundred cores
  – 2 TB RAM
• Access to ECDF (Edinburgh Compute and Data Facilities)
  – Over 3000 cores
  – Several TB RAM
• Experience with Amazon EC2
• Dedicated bioinformatics training suite
• We can deliver training courses on a variety of topics:
  – Unix/Linux, Perl, Python, R, the Grid and the Cloud
  – Next Generation Sequencing, genome assembly, RNAseq, ChIPseq, RADseq, variant calling
  – Galaxy, Genomatix, genome browsers
  etc. etc.
• We are planning to give the first Next Generation Sequencing course in June
• But .... what training is actually needed?

• You can help us by:
  – completing the survey that I will hand out
  – talking to me (Bert.Overduin@ed.ac.uk) about your bioinformatics training needs

• Thank you for your cooperation!